REMARKS

Reconsideration of this application is respectfully requested.

With entry of this amendment, claims 1-6, 8-23, and 25-33 are pending in this application. Support for the amendments to the claims is found throughout the application, including at page 5, lines 17-21 and Table 2. Thus, the amended claims are supported by the specification, no new matter enters by amendment, and entry of this amendment is proper.

Response to Restriction Requirement

In a restriction requirement dated December 18, 2002, the Examiner required restriction under 35 U.S.C. § 121 between Group I, claims 1-2, drawn to nucleic acids; Group II, claims 3-6 and 8, drawn to methods of detecting mycobacterial species by nucleic acid amplification; Group III, claim 9, drawn to kits comprising primers; Group IV, claim 10, drawn to methods of nucleic acid amplification; Group V, claims 11, 14-15, and 17, drawn to polypeptides, antibodies, and kits comprising polypeptides and antibodies; Group VI, claims 12-13 and 27-33, drawn to methods of detecting antibodies; Group VII, claim 16, drawn to methods of detecting protein; Group VIII, claim 18 and 19, drawn to a vaccine; and Group IX, claims 20-23 and 25-26, drawn to methods of detecting mycobacterial species by restriction digestion. Applicants provisionally elect to prosecute Group I, claims 1-2, drawn to nucleic acids, with traverse.

The restriction requirement is based on the Examiner's contention that unity of invention is lacking. (Office Action at page 3.) In support of this contention, the Examiner alleges that "molecules meeting the limitations of Group I do not make a contribution over the art," because such molecules "were known in the art at the time

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the invention was made." (Office Action at page 3.) The Examiner cited Brosch et al., *Infection and Immunity*, 66(5): 2221-29 (1998) ("Brosch") in support of this allegation. (Office Action at page 3.) Without addressing the merits of the Examiner's characterization of the disclosure of Brosch, or of the patentability of the pending claims over Brosch, applicants note that Brosch is not prior art to the instant application. Accordingly, applicants respectfully submit that the Examiner has not met her burden and respectfully request that the restriction requirement be withdrawn.

The Examiner further required an additional election if Group I, V, VI, VII, or VIII is elected. In particular, the Examiner required that a single molecule recited in the claims of these groups be elected. The Examiner noted, however, that if Group I is elected, one of the combinations or groups of molecules recited in claim 2 could be elected, instead of electing a single molecule recited in claim 1. Applicants provisionally elect to prosecute the molecules of Group E in claim 2 ("RD9: *cobL*, Rv2073c, Rv2074, Rv2075c"), with traverse.

In support for requiring election of a single molecule, or group of molecules recited in claim 2, the Examiner contends that "[t]he molecules are not obvious variants of one another, and the differing molecules do not share a special technical feature within the meaning of PCT Rule 13.2." (Office Action at page 4.) Applicants respectfully disagree with this characterization. Specifically, the molecules are described as deleted from the genome of *M. bovis* BCG/*M. bovis* and present in the genome of *M. tuberculosis* for the first time in the instant application. Because Brosch is not prior art to the instant application, the Examiner has provided no sustainable basis

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to support this election requirement and, accordingly, applicants respectfully request that the requirement be withdrawn.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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Dated: February 19, 2003

By: _____
Kenneth J. Meyers
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APPENDIX

1. (Twice amended) A nucleotide or polynucleotide sequence deleted from the genome of *M. bovis* BCG/*M. bovis* and present in the genome of *M. tuberculosis* or a nucleotide or polynucleotide sequence of the following ORFs and genes: Rv2346c, Rv2347c, Rv2348c, *plcC*, *plcB*, *plcA*, Rv2352c, Rv2353c, Rv3425, Rv3426, Rv3427c, Rv3428c, Rv1964, Rv1965, *mce3*, Rv1967, Rv1968, Rv1969, *lprM*, Rv1971, Rv1972, Rv1973, Rv1974, Rv1975, Rv1976c, Rv1977, *ephA*, Rv3618, Rv3619c, Rv3620c, Rv3621c, Rv3622c, *lPqG*, *cobL*, Rv2073c, Rv2074, Rv2075, *echAl*, or Rv0223c[, RvD1-ORF1, RvD1-ORF2, Rv2024c, plcD, RvD2-ORF1, RvD2-ORF2, RvD2-ORF3, or Rv1758].

2. (Twice amended) The nucleotide or polynucleotide sequences as claimed in claim 1 grouped together in nucleotide regions RD5 to RD10 [and RvD1 and RvD2] according to the following distribution:

(A) RD5: Rv2346c, Rv2347c, Rv2348c, *plcC*, *plcB*, *plcA*, Rv2352c, Rv2353c;

(B) RD6: Rv3425, Rv3426, Rv3427c, Rv3428c;

(C) RD7: Rv1964, Rv1965, *mce3*, Rv1967, Rv1968, Rv1969, *lprM*, Rv1971, Rv1972, Rv1973, Rv1974, Rv1975, Rv1976c, Rv1977;

(D) RD8: *ephA*, Rv3618, Rv3619c, Rv3620c, Rv3621c, Rv3622c, *lpqG*;

(E) RD9: *cobL*, Rv2073c, Rv2074, Rv2075c; and

(F) RD10: *echAl*, Rv0223c[;

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(G) RvD1: RvD1-ORF1, RvD1-ORF2, Rv2024c; and

(H) RvD2: *plcD*, RvD2-ORF1, RvD2-ORF2, RvD2-ORF3, Rv1758].

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